

## **MARINE ENGINEER DIVING OFFICER (MEDO)**

### **COURSE DESCRIPTION:**

The MEDO course trains Navy Civil Engineer Corps (CEC), Engineering Duty (ED), Seabee, and Army Engineer Officers in supervision and diving techniques for surface supplied air and mixed gas, SCUBA and closed circuit operations.

### **PURPOSE:**

The MEDO Course is designed to provide initial pipeline training for officers assigned to a diving command. This course trains U.S. Navy and Army officers to safely and effectively perform as a diver, dive team member, Diving Supervisor, Demolition Team Leader, and a Diving Officer IAW the U.S. Navy Diving Manual and approved technical manuals. Upon completion members will have proficiency of underwater tools and light salvage, ie: the use of lift bags; rigging; lifting operations utilizing weight handling equipment; and casualty management.

### **COURSE OUTLINE:**

The course content will include the following topics:

- Application of casualty management skills and protocols.
- Safe application, operation, and maintenance of SCUBA Diving equipment.
- Safe application, operation, maintenance of Surface Supplied Diving equipment.
- Performance of all job positions on the side during SCUBA Diving, Surface Supplied Diving and Recompression Chamber Operations.
- Use basic tools and the application of mechanical skills in an underwater environment.
- Use underwater hydraulic tools and equipment.
- Use underwater ultra-thermic cutting and welding equipment.
- Use of underwater excavation and weight-handling equipment.
- Use of lone, wire rope, chain and related hardware in the Rigging and Seamanship Operations.
- Operation of small craft and application of navigational rules and techniques.
- Safe application, operation, and maintenance of the Army's Break Away Diving Air Stowage System (BDASS).
- Apply knowledge of advanced physics and formulas to air diving and recompression chamber operations.
- Identification of diving diseases or injuries and recognition of treatment protocols.
- Perform as a dive supervisor in the planning and execution of air diving operations for both SCUBA and Surface Supplied Diving.
- Supervise hyperbaric chamber operations.
- Diagnose and supervise the treatment of diving related disorders, accidents, and injuries.
- Perform as an inside tender for a hyperbaric chamber treatment.
- Perform as a diving supervisor while conducting surface supplied diving operations.
- Perform as a diving supervisor while conducting SCUBA diving operations.
- Supervise casualty management, extraction, and evacuation of a diving casualty.
- Performance of fleet mooring maintenance and inspections.
- Performance of waterfront facilities maintenance and inspection.
- Safe application of Salvage Construction Diver Demolition techniques.
- Placement and reduction of minefields during Mine/Countermine Operations.
- Application of reconnaissance techniques.
- Perform Engineer Diver Mission during Field Training Exercise.

## **TRAINEE DATA**

### **Personnel/Physical Requirements:**

- Army personnel attending training must be physically qualified in accordance with the Army Regulation (AR) 40-501 *Standards of Medical Fitness* and AR 611-75 *Management of Army Divers*.
- Pass Dive Physical
- Pass Candidate Pressure Test
- Pass Diver Physical Screening Test
- Navy Members must have Secret Security Clearance and be TS Eligible
- All members will be required and expected to tread water with weight as well as participate in weighted runs and daily group weight lifting exercises, ie: "LOG" and "BOAT" PT (Physical Training).
- **Civil Engineer Corps (CEC) Officers:** Physical requirements are the same as for the Navy Seabee Underwater Construction Technician Basic (UCTB) Diver Course.

### **Uniform and Grooming Standards:**

While you are assigned to NDSTC, you will be required to maintain grooming standards as per the Navy's Uniform Regulations. That means haircuts with a ¾" taper and mustaches within standards. No other facial hair is allowed. If you have any questions please ask.

### **Prior to Reporting:**

Once you receive your orders, you need to ensure that you understand what type of funding you are on for lodging and per diem, so you know if you should be living out in town or in the BOQ. Contact your program or community manager and they should be able to tell you which one it is. If you are funded to live in the BOQ, it is your responsibility to make reservations as soon as possible to ensure space availability. Reservations can be made at (850) 236-2500 or (877) 628-9233. If you plan to arrive early and wish to check in prior to the June 6th convene date, please give me a call and we'll give you additional direction.

It is extremely important that you report to NDSTC with a UMO/DMO signed dive physical that is less than two years old. The first weeks of instruction do not allow time to complete a dive physical at NDSTC. If you foresee problems obtaining this physical, please contact me.

### **Indoctrination (INDOC):**

You will park and muster in front of the NSA galley NLT 0530. dressed in the uniform of the day. Please have with you, your medical record and any pertinent travel documentation. You will form up and march as a class to the quarterdeck of NDSTC for a uniform inspection. Following the uniform inspection, you will begin the INDOC phase, which includes urinalysis, briefings by command staff, and gear issue (UDTs (diver PT shorts), mask, fins, snorkel, and a wetsuit). Once INDOC is complete (1130), you will switch to your business casual attire and transit to the galley for lunch. At roughly 1300, CPR certification will commence and continue till 1600.

Day two times and muster locations will be briefed prior to the conclusion of Day One. Day Two activities will begin with a Diver's Physical Screening Test. The ratio of staff to students will be 1:1 and all activities will be closely monitored. The Diver PST will be conducted in strict accordance with MILPERSMAN for the program that you were selected for. Failures will be retested the following week and a second failure will result in an automatic drop from training. This is strictly enforced at NDSTC and no waivers will be granted. Any anticipated issues with the PST should be identified and discussed prior

to arrival. Following the PST, we will begin the mask, fins, snorkel familiarization and in water proficiencies. A course in dive physics will finish out day two.

### **Daily Operations:**

Most training days will begin before 0600 and finish around 1600. Mandatory study times will be conducted following the normal workday when deemed necessary by the instructor. Besides several break-out sessions, the Navy MEDO program is conducted alongside the Seabee Basic Underwater Construction Technician, Army Engineer Diver and Army MEDO courses. Because of this grouping, you will be required to attend classes, PT and march in formation to and from the barracks with junior enlisted members. You are expected to remain professional throughout this process and act accordingly. In addition to the student to student interactions, all instructors for the MEDO program are E-6 or E-7, fully qualified divers and instructors. I can assure you that they carry themselves in the upmost professional manner and will respect the officer/enlisted/civilian relationship.

### **Physical Fitness:**

NDSTC has a proud history of conducting physically demanding training. If you arrive to NDSTC barely able to pass the diver PST, you will be well behind the curve. Although it is impossible to detail the daily regiments of PT, you can expect daily callisthenic workouts (core strength, flexibility, and conditioning), long runs, pool/open water swims and various other means of physical conditioning. In addition, you should be very comfortable in the water. Many of our failures occur during the mask, fins, snorkel, in-water proficiencies and pool confidence training. Treading water with weights held overhead and mask, fin and snorkel practice are great ways to become confident in the water prior to your arrival. Additionally, all students are required to pass a 1000 yd open water bay swim. The swim will be conducted by kicking with fins, while on your back, and must be completed in less than 22 minutes. Proper kicking techniques and the ability to track in a straight line are instrumental for success.

### **A few things to make your first days here a bit easier:**

~ Please arrive to training able to pass the Dive PT test. Historically speaking, if you are borderline when someone else is giving you the test...you will fail when we give you the test. It is embarrassing to the member and a pain to your community.

~ Be comfortable in the water. We will put you in uncomfortable situations that are designed to test your aquatic adaptability. Be calm and you will have no problems.

~ You will be going through training at one of the hottest and most humid times of the year! If at all possible, try to acclimate to that type of weather prior to arriving – we understand that it may not be possible for everyone.

~ Have a good attitude. This will hopefully be the best course you ever attend! It is supposed to be tough...but fun. Enjoy it!

### **NOTE:**

- Please refer to both the SEABEE UCT section and the “Training Resources” Tab at the top of the NDSTC web page for documents regarding Physical Screening Test Requirements and other Physical Prerequisites.
- Please contact the Navy Seabees or the Army division via email with any unanswered questions or further concerns.
- MEDO and the Army 2<sup>nd</sup> Class Diver Course and the UCTB students all train in conjunction for the first four months of training. After four months, the Officer students break off for Advanced Physics and Medicine and Supervisory Techniques while the remaining students learn in-water proficiency techniques utilizing various tools. Upon completion of that five week period, the officer members regroup and assume supervisory rolls overseeing demolition and diving operations, including project supervisor and planner duties.

- **Engineering Duty (ED) Officers** remain for an additional week for training on Ship Design.
- **CEC Officers** conclude training upon completion of the Ocean Facilities Program Phase which includes: concrete pouring, water front facilities inspections; body recovery; cable inspections and reporting.
- **Army Officers** remain in training for the entirety of the 7 months until the conclusion of all diving training and additional Army led Field Exercises conducted at nearby Army facilities. This portion of schooling will include field instruction such as small arms training, land navigation, and rucking.

**REFERENCES:**

MILITARY DIVING MANUAL, FM 20-11

MANAGEMENT OF ARMY DIVERS, AR 611-75

STANDARDS OF MEDICAL FITNESS, AR 40-501

MANAGEMENT OF ARMY DIVERS, AR 611-75

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